## Weather and Climate of Lake Mead National Recreation Area

The Lake Mead National Recreation Area is truly an oasis in the desert. Terrain varies sharply ranging from nearly 650 feet to over 2,000 feet above sea level. Some of the hottest areas in the states of Nevada and Arizona during the summer months can be found in the lowest elevations of this area. Temperatures can vary by 3°F to 5°F for each thousand feet (1°C to 3°C for every 304 meters).

Water in Lake Mead and also in Lake Mohave is feed by the Colorado River. The main source of water for the lakes lays thousands of miles away in western Colorado where precipitation largely in the form of snow eventually melts and flows into the river. Most of the precipitation that falls in the Lake Mead National Recreation area comes from storm systems that sweep in from the Pacific during the cooler months. Mountains in California as well as the Spring Mountains in southern Nevada block much of the moisture that accompanies storm systems from the Pacific. During the summer, the monsoon season brings thunderstorms, some which will unleash heavy rain in a short period. Most of the year throughout the park, however, the weather is characterized by sunshine. Gusty winds occur on several days each month from October through May, with the highest frequency in the spring months. Stronger wind gusts may be accompanied by blowing dust. Although the warmer season months bring intense heat and sometimes increased humidity, a significant drop in temperatures can be found in winter.

	Temperature and Precipitation												
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Year
Avg. High	60.1°F 15.6°C	64.0°F 17.8°C	72.2°F 22.3°C	81.2°F 27.3°C	92.3°F 33.5°C	102.4°F 39.1°C	107.0°F 41.7°C	105.1°F 40.6°C	97.4°F 36.3°C	83.9°F 28.8°C	69.6°F 20.9°C	60.1°F 15.6°C	83.0°F 33.0°C
Avg. Low	40.1°F 4.5°C	44.0°F 6.6°C	48.1°F 8.9°C	56.4°F 13.6°C	65.3°F 18.5°C	76.3°F 24.6°C	81.7°F 27.6°C	80.2°F 26.8°C	71.7°F 22.1°C	59.6°F 15.3°C	47.8°F 8.8°C	39.2°F 4.0°C	59.3°F 15.2°C
Record High	75°F 24°C	86°F 30°C	91F 33°C	100°F 38°C	111°F 50°C	118°F 48°C	119°F 48°C	115°F 46°C	111°F 44°C	100°F 38°C	90°F 32°C	81°F 27°C	119°F 48°C
and Year	2015*	1968	2007*	2009*	1984	2013	2007*	2009*	2007	2000	1934	2005	2007*
Record Low	11°F -12°C	12°F -11°C	25°F -4°C	31°F -1°C	37°F 6°C	41°F 5°C	56°F 13°C	59°F 15°C	43°F 6°C	30°F -1°C	26°F -3°C	9°F -13°C	9°F -13°C
and Year	1937	1933	1964	1963*	2002*	1980	1986	1957	1982	1971	1931	1990	1990
Normal Precip.	0.83 in 2.10cm	0.73 in 1.90cm	0.77 in 2.00cm	0.22 in 0.60cm	0.12 in 0.30cm	0.09 in 0.20cm	0.64 in 1.60cm	0.64 in 1.60cm	0.30 in 0.80cm	0.42 in 1.10cm	0.42 in 1.10cm	0.86 in 2.20cm	6.04 in 15.3cm
Wettest Amount and	3.45 in 8.80cm	3.14 in 8.10cm	5.04 in 12.8cm	3.03 in 7.70cm	1.37 in 3.50cm	0.70 in 1.80cm	2.64 in 6.70cm	5.08 in 12.9cm	3.75 in 12.9cm	2.23 in 12.9cm	2.65 in 6.60cm	2.46 in 6.20cm	13.36 in 33.9cm
Year	1949	1998	1992	1965	1971	1964	2006	1984	1976	1974	1960	1984	1984
Driest Amount and	0.00 in 0.00cm	0.00 in 0.00cm	0.00 in 0.00cm	0.00 in 0.00cm	0.00 in 0.00cm	0.00 in 0.00cm	0.00 in 0.00cm	0.00 in 0.00cm	0.00 in 0.00cm	0.00 in 0.00cm	0.00 in 0.00cm	0.00 in 0.00cm	0.67 in 1.70cm
Year	2007*	2002*	2009*	2014*	2014*	2014*	2010*	2006*	2009*	2009*	2007*	2005*	2001

\*Also in previous years.

All weather statistics shown above are for the Boulder City/Boulder Beach, NV Area from 1931 through 2011. Averages and normals are based on the period from 1981 to 2010 and are provided by NOAA's National Centers for Environmental Information (NCEI) for the Alan Bible Visitor Center.





# **Weather By The Water**



#### **Summer Storms**

During the summer months, pushes of monsoon moisture into the area bring increased humidity along with scattered thunderstorms. Humidity can add discomfort to the heat and can make you more easily succumb to hot weather. These storms can unleash heavy rain in a short time period, resulting in flash flooding. Slot canyons can easily see water sweep through them and dry washes and low spots can quickly fill with water. Roads in and around the Lake Mead National Recreation Area drop through natural washes. These washes can carry water and debris onto roads making them dangerous to cross. In addition, some trails and parking areas could also flood. Lightning will also pose a hazard.

#### **Seasons In The Sun**

Sunny and dry weather dominates throughout the year in southern Nevada and northwest Arizona, but contrary to common belief hot weather does not. The Lake Mead National Recreation Area experiences four distinct seasons. Winter storms usually arrive from the Pacific and bring with them most of the area's yearly precipitation. Most will bring rain but colder storms can bring snow to elevations of the park above 3,000 feet. Heavier snow amounts of 3 inches or more are rare.

The transition seasons of spring and fall often see a mix of several warm and several cooler days. Cold fronts in these seasons usually pass through with more limited moisture. The summer months are dry most of the time, but pushes of monsoon moisture into the area will result in increased clouds and scattered thunderstorms. Sometimes more rain may fall with one thunderstorm than from several winter storms. Low humidity, bright sunshine and hot afternoons are common though and require keeping hydrated and being aware of your health to avoid succumbing to the desert elements.



## **Stay Safe on the Lake**

The leading cause of weather-related deaths and injuries in the Lake Mead National Recreation Area is from wind. The most common time of the year is May and early June, when winds increase in association with cold fronts passing through the region. Sometimes showers that develop in association with storms also send out brief gusts of winds, even though they bring little rain. Winds of 25 mph or higher can cause boats or other personal watercraft to capsize. The National Weather Service in Las Vegas will issue Lake Wind Advisories when sustained winds of 25 mph or greater are expected.

## Average Lake Mead Water Temperatures By Month At Boulder Beach, NV

Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
54°F	56°F	58°F	61°F	65°F	75°F	79°F	83°F	82°F	78°F	68°F	59°F
12°C	13°C	14°C	16°C	18°C	24°C	26°C	28°C	28°C	26°C	20°C	15°C

## **Lake Mead National Recreation Area Weather Timeline**

- 1931 Permanent weather station established in Boulder City in late August.
- 1937 Coldest month ever in Boulder City/Boulder Beach area with an average temperature of 32.2°F (0.1°C).
- **1964** A thunderstorm on June 7<sup>th</sup> produced waves up to 10 feet on Lake Mead that swamped boats and tore up docks and produced a few waterspouts up to 200 feet high.
- 1973 On August 20<sup>th</sup> thunderstorm winds cause \$1.6 million in damages to several marinas on Lake Mead.
- **1974** A cold storm in early January drops 0.8 inch (2 cm) of snow at Willow Beach, AZ. On September 14<sup>th</sup>, a deadly flash flood wipes out the marina, cars and mobile homes at Nelson's Landing on Lake Mohave County killing 9 people. This is the deadliest flash flood in southern Nevada history.
- **1984** On July 11<sup>th</sup> a thunderstorm with winds up to 90 mph produced over \$2 million in damages to marinas on Lake Mead, mainly at Callville Bay, NV sinking 65 boats and damaging another 100. On July 22<sup>nd</sup>, a weak tornado (rated F0) is spotted north of Willow Beach but does not cause any damage.
- **1990 Coldest temperature ever** for the Boulder City/Boulder Beach area set on December 23<sup>rd</sup> when the temperature drops to 9°F (-13°C).
- 2005 Boulder City weather station closes in October, observing site for area moves to Alan Bible Visitor Center.
- **2007 Hottest temperature ever** 119°F(48°C) recorded in the Boulder City/Boulder Beach area most recently set on July 5<sup>th</sup> at the Alan Bible Visitor Center.
- **2010** Lake Mead drops to its lowest level since it was first filled in 1937. The lake reached 1083.18 feet on October 17<sup>th</sup> breaking the old record of 1083.19 feet on April 26, 1956. On October 4<sup>th</sup>, a major flash flood took place at Callville Bay where a torrent of water up to 10 feet high damaged the one third of the marina.